Solving System WS 2 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_

Show all of your work on a separate piece of paper. Solve the system in any way you choose. Just show all of your work, or what you plugged into the calculator.

1. You are offered two different jobs selling dental supplies. One company offers a straight commission of 6% of sales. The other company offers a salary of $350 per week plus 3% of sales. How much would you have to sell in a week in order to make the straight commission offer the better offer?

2. Revenues for a redbox terminal on a particular Friday evening are $557.5 for 320 rentals. The rental fee for movies is $1.00 each and the rental fee for video games is $3.50. Determine how many movies and games were rented.

3. A total of $46,000 is invested in two corporate bonds that pay 6.75% and 7.25% simple interest. The investor wants an annual interest income of $3245 from the investments. What is the most that can be invested in the 6.75% bond?

4. A chemist has a 25% solution of NaCl and a 55% solution of NaCl. She wants to make 10 liters of a 35% solution of NaCl. How much of each solution does she need?

5. Four large cheeseburgers and two chocolate shakes cost a total of $7.90. Two shakes cost 15 cents more than one cheeseburger. What is the cost of a cheeseburger and the cost of a shake?

6. The sum of two positive integers is 81. The difference of twice one number and three times the other is 62. Find the two numbers.

7. The perimeter of a rectangular floor is 90 feet. Find the dimensions of the floor if the length is twice the width.

\*8. Find the equation of a line that contains the points ( 0,4) and (-4, 6).

\*9. Find the equation of a line that is parallel to y = -3x + 4 and goes through the point (-2,4).

\*10. Solve the system of equations by any method you choose.

2x – 4y = 8

-x + 2y = 10